What is Claimed:

1. A filter having a graduated structure, comprising at least a first, a second, and a third layer each having a different pore size, wherein:

the filter is manufactured from sinterable materials;

the pore size of the first layer is within a range of approximately 0.01 μm to approximately 1 μm;

a thickness of the first layer is within a range of approximately 0.5 μm to approximately 50 μm;

the first layer is formed from one of a metal oxide material and a mixture comprising a metal oxide material;

the second layer is formed from a metallic material;

a thickness of the second layer is within a range of approximately 5 μm to approximately 300 μm;

the third layer comprises a coarse and porous supporting body formed from a metallic material;

the metal oxide material of the first layer penetrates into the second layer to a depth of approximately one to approximately five pore plies;

the pore size of the first layer is approximately 1/3 to approximately 1/6 of the pore size of the second layer; and

the first layer is formed using a suspension having a viscosity within a range of approximately 0.003 pas to approximately 0.96 pas.

2. The filter of claim 1, wherein the pore size of the first layer is within a range of approximately 0.05 μm to approximately 0.6 μm.

3. The filter of claim 1, wherein the one of a metal oxide material and a mixture comprising a metal oxide material is selected from a group comprising reducible metal oxides and metal oxides that are difficult to reduce.

4. The filter of claim 3, wherein the metal oxides that are difficult to reduce are selected from a group comprising TiO2, Al2O3, ZrO2, Cr2O3, CaO, MgO and SiO2.

5. The filter of claim 3, wherein the reducible metal oxides are selected from a group comprising AgO, CuO, Cu2O, Fe2O3, Fe3O4 and NiO.

6. The filter of claim 1, further comprising a layer formed from mixed oxides and located between the first layer and another layer of the filter.

7. A method for producing the filter of claim 1, comprising applying a suspension comprising a metal oxide material onto a previously-formed layer of the filter and subsequently sintering the metal oxide material in the suspension.

8. The method of claim 7, wherein the suspension comprising a metal oxide material is sprayed onto the previously-formed layer of the filter.

9. The method of claim 7, wherein the previously-formed layer is produced by spraying a suspension comprising sinterable materials and subsequently sintering the sinterable materials in the suspension.

10. The method of claim 7, wherein the previously-formed layer is smoothed mechanically before the suspension comprising a metal oxide material is applied.

11. The method of claim 7, wherein the suspension comprising a metal oxide material further comprises at least one of a solvent, a binding agent, a stabilizer, and a dispersing agent.

12. The method of claim 11, wherein the solvent is selected from a group comprising water, methanol, ethanol, isopropanol, terpenes, C2-C5-alkenes, toluenes, trichlorethylenes, diethyl ether, C1-C6-aldehydes, and ketones.

13. The method of claim 11, wherein the binding agent is selected from a group comprising polyvinyl acetate, waxes, shellac, polyethylene oxides, and polyglycoles.

14. The of claim 11, wherein the stabilizer is selected from a group comprising organic acids, inorganic acids, inorganic lyes, polyacrylamides, polyacryl acid, and amines.

15. The of claim 11, wherein the dispersing agent is selected from a group comprising polyamines, phthalic ester, and polyethylenemines.